

# Ultraviolet Line Lights LNSP-UV-FN series

Refer to our website for product details.

CCS LNSP-UV-FN

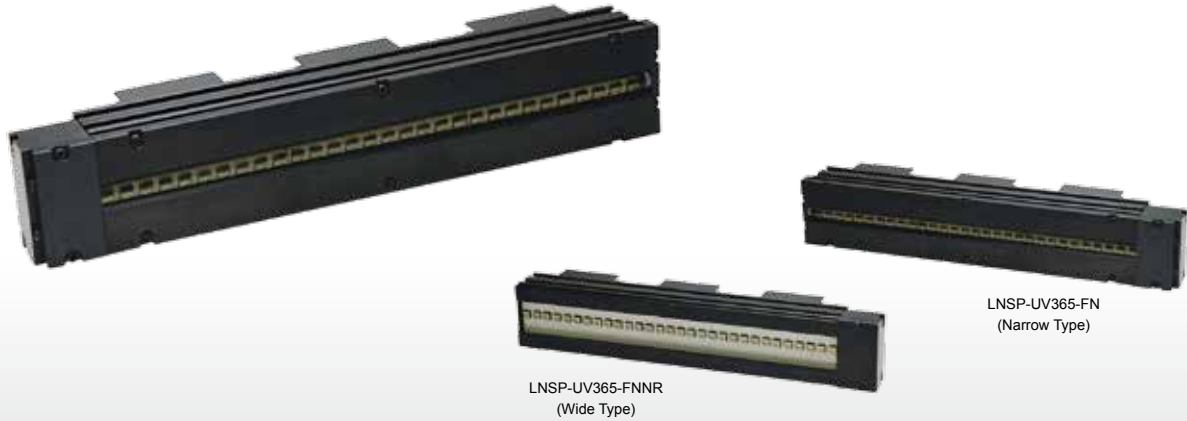
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## UV Line Lights that use high-output UV-LEDs



### Applications

Inspection for detecting seal material through fluorescent excitation, inspections using differences in spectral reflectivity, and inspections using differences in scattering rates, etc.

### Narrow type that can achieve convergent illumination

By using a rod lens, the Light Unit concentrates illumination in a narrow range. There is little loss of radiation output, allowing for convergent illumination.

#### Characteristics of the narrow type



Uniformity graph



Output comparison

Conventional product (LDL-74x27UV365)

LNSP-UV365-FN **Approx. 150x**

\* Camera output varies based on the camera's spectral sensitivity.



Imaging example	Imaging of invisible code
Workpiece	Plastic plate

White Bar Light



Fluorescent observation is difficult with white light.

LNSP-300UV365-FN



Fluorescent observation for the invisible code is possible.

### Wide type that can achieve diffused illumination

The illuminated range is wide, allowing for a broad range to be illuminated.

#### Characteristics of the wide type



Uniformity graph



Output comparison

Conventional product (LDL-74x27UV365)

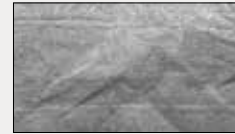
LNSP-UV365-FN **Approx. 40x**

\* Camera output varies based on the camera's spectral sensitivity.



Imaging example	Imaging of foreign material on paper
Workpiece	White paper (Tissue)

White Bar Light



Fluorescent observation is difficult with white light.

LNSP-300UV365-FN



Fluorescent observation for foreign material, such as dust, is possible.

### Custom orders

Please contact your CCS sales representative.

E.g.: Different wavelength

Wavelength Equipped with 385 nm LEDs

#### Customizable items

- External/internal diameter
- Wavelength/color
- Increase output
- Cable length
- Illuminating angle
- Format/material
- Connector format
- Installation/mounting

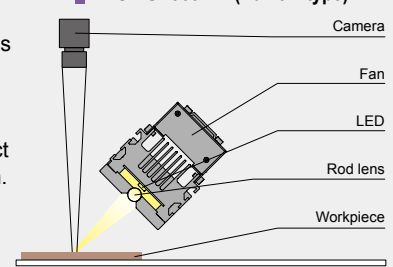


Etc.

### Example configuration

By using a rod lens, the Light Unit concentrates illumination in a narrow range. High output UV Line Light perfect for UV excitation.

#### LNSP-UV365-FN (Narrow type)



We have various materials.

PDF Drawings

DXF Drawings

3D CAD

Instruction Guides

Product Filers

Imaging Samples

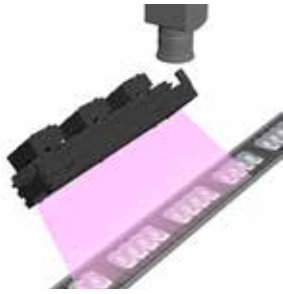
Data Sheets

Examples of Custom Ordered Products

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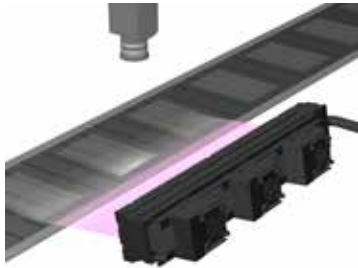
### Imaging example : Imaging to detect contact lenses inside packaging



Description	Detection inspection
Workpiece	Contact lenses
Before the proposal	LED visible light lighting
After the proposal	LNSP-300UV365-FNNR
Result	Fluorescent excitation via ultraviolet lighting

<p><b>Workpiece image</b></p> <p>Contact lenses</p>	<p><b>LED visible light lighting</b></p> <p>With visible light lighting, it is difficult to detect the contact lenses.</p>	<p><b>LNSP-300UV365-FNNR</b></p> <p>Depending on the type of contact lens, they absorb the ultraviolet wavelength, allowing for the inside of the pack to be imaged.</p>
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### Imaging example : Imaging of alignment of clear film



Description	Visual inspection
Workpiece	Clear film
Before the proposal	LED visible light lighting
After the proposal	LNSP-300UV365-FN
Result	Fluorescent excitation via ultraviolet lighting

<p><b>Workpiece image</b></p> <p>Clear plate (bottom) and film (top)</p>	<p><b>LED visible light lighting</b></p> <p>With visible light lighting, it is difficult to form an image of the clear film.</p>	<p><b>LNSP-300UV365-FN</b></p> <p>Only the clear film causes scattering, emphasizing the edge.</p>
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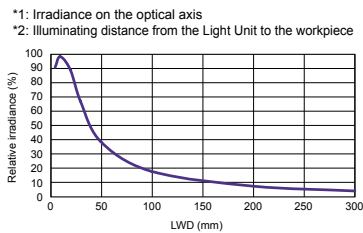
### Data: Relative irradiance graph/Uniformity graph (Representative example)

#### Narrow Type

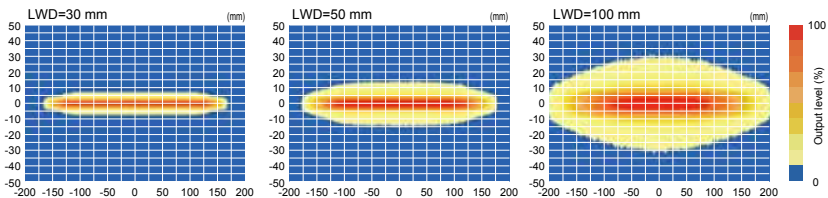
Relative irradiance graph<sup>\*1</sup>  
(LWD Characteristics)<sup>\*2</sup>



\* The graph included is for reference only and does not guarantee the quality of this product.



#### Uniformity graph (Relative irradiance)



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<http://www.ccs-grp.com/contact/>

# LNSP-UV-FN series



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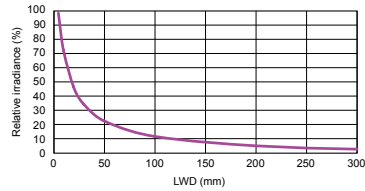
Use a search engine.

## Data: Relative irradiance graph/Uniformity graph (Representative example)

### Wide Type

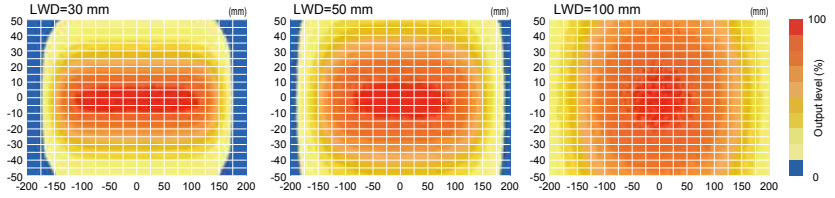
Relative irradiance graph\*<sup>1</sup>  
(LWD Characteristics)<sup>2</sup>

\*1: Irradiance on the optical axis  
\*2: Illuminating distance from the Light Unit to the workpiece



\* The graph included is for reference only and does not guarantee the quality of this product.

### Uniformity graph (Relative irradiance)

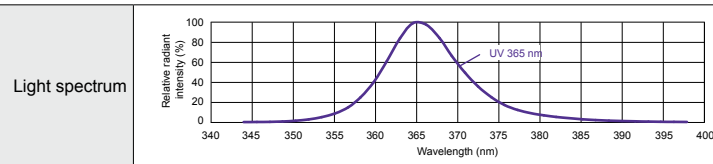


## Lineup \* End of the model name: -FN: Narrow type, -FNNR: Wide type

Model name	LED color	Power consumption	Peak wavelength	Options	Recommended Control Unit	Weight
LNSP-100UV365-FN	Ultraviolet	31 W	365 nm	Ultraviolet cutting filter Ultraviolet transmission filter	PSCC	1,000 g
LNSP-200UV365-FN		61 W				1,400 g
LNSP-300UV365-FN		92 W				1,800 g
LNSP-100UV365-FNNR		31 W				800 g
LNSP-200UV365-FNNR		61 W				1,100 g
LNSP-300UV365-FNNR		92 W				1,400 g

PSCC Series Products Page ▶ P.211

## LED properties



Be sure to read the "Instruction Guide" included with the product before use and observe cautionary information. The data included is for reference only and does not guarantee the quality of this product.

## Cautionary information regarding UV products

- Do not expose your eyes or skin to direct UV irradiation.
- When using an UV illumination, be sure to wear UV blocking eye wear and avoid looking at irradiating parts (emitting parts).
- Do not turn on UV-LED irradiation parts (emitting parts) if they are facing someone's eyes.
- Wear long sleeves and gloves to protect your skin from UV irradiation.
- Carefully inform all persons in the area around this product of the dangers of UV-LED.



(E.g.) UV blocking eye wear

## Options



Blocks light with a wavelength of 420 nm or lower, transmits light with a longer wavelength.

Ultraviolet cutting filter  
L42 series

Model name	Size
L42-25	M25.5 P0.5
L42-27	M27.0 P0.5
L42-30	M30.5 P0.5
L42-40	M40.5 P0.5
L42-46	M46.0 P0.75

▶ P.215



Transmits light with wavelength range of approx. 280 nm to 380 nm, centered around 340 nm.

Ultraviolet transmission filter  
U340 series

Model name	Size
U340-25	M25.5 P0.5
U340-27	M27.0 P0.5
U340-30	M30.5 P0.5
U340-40	M40.5 P0.5
U340-46	M46.0 P0.75

▶ P.215

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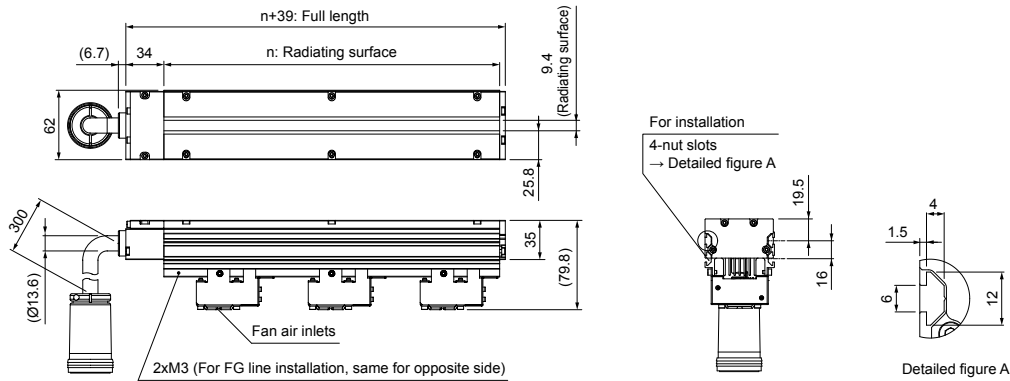
Data Sheets

Examples of Custom Ordered Products

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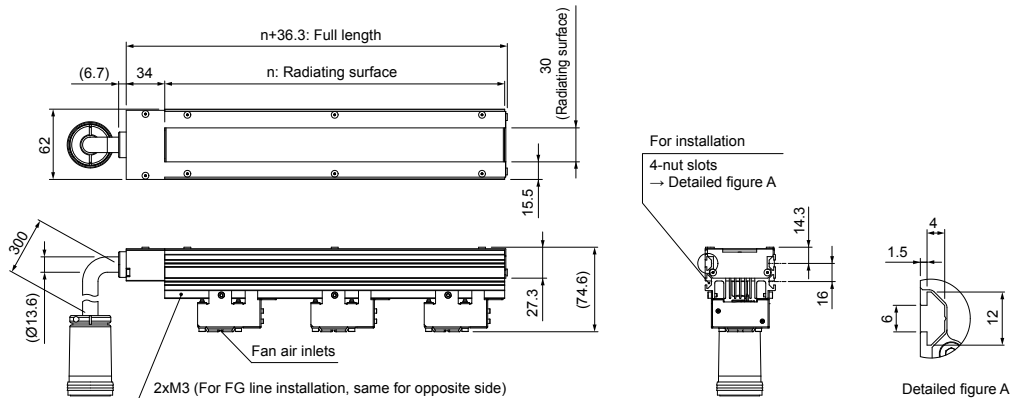
## Dimensions (mm)

### LNSP-□□□UV365-FN (Narrow type)



Model name	n	Number of cooling fans
LNSP-100UV365-FN	100	1
LNSP-200UV365-FN	200	2
LNSP-300UV365-FN	300	3

### LNSP-□□□UV365-FNNR (Wide type)



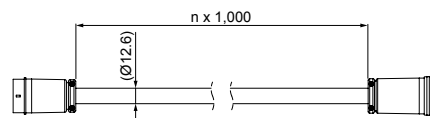
Model name	n	Number of cooling fans
LNSP-100UV365-FNNR	100	1
LNSP-200UV365-FNNR	200	2
LNSP-300UV365-FNNR	300	3

## Extension Cables

Model name	Cable length	Weight	Applicable Control Unit
QCBM-2	2 m	800 g	PSCC-30048
QCBM-3	3 m	1,000 g	
QCBM-5	5 m	1,500 g	
QCBM-10	10 m	2,700 g	
QCBM-20	20 m	5,000 g	
QCB-2	2 m	1,100 g	PSCC-60048
QCB-3	3 m	1,500 g	
QCB-5	5 m	2,400 g	
QCB-10	10 m	4,600 g	
QCB-20	20 m	8,900 g	

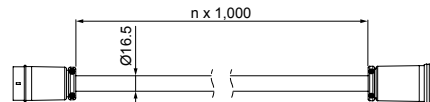
\* Necessary when connecting the Light Unit to the recommended Control Unit, the PSCC series.

QCBM-n (n=2, 3, 5, 10, 20) (mm)



Cable permitted bending radius: 75.6 mm

QCB-n



Cable permitted bending radius: 99 mm

Direct Lighting	LDR2 LDR2-LA LDR-LA1 SQR SQR-TP
Convergent Lighting	HLDR-IP
Diffused Lighting	HPR2 HPR LFR LKR FPR FPQ2
Direct Lighting	LDL2 LDLB HLDL2
Diffused Lighting	TH LFL HPD2 HPD LDM2 LAV PDM LFX2 LFV3 LFV2
Colimated Lighting	MSU MFU
Ultraviolet Lighting	UV2 UV LNSP-UV-FN
Infrared Lighting	IR2
Spot Lighting, Etc.	HLV2 LV LSP HFS/HFR HLV2-NR HLV2-3M-RGB-3W PFB2 PFBR
Convergent Lighting	LNSP CU-LNSP LNSP-FN LN/LN-HK
Diffused Lighting	LNSD LND2 HLND LT LN/HLDN
Oblique Angled Lighting	LNIS LNIS-FN
Lenses	Telecentric Lens Macro Lens

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